

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATERSHED MANAGEMENT

ADOPTION OF THE AMENDMENT TO THE NORTHEAST WATER QUALITY
MANAGEMENT PLAN TO ESTABLISH A TOTAL MAXIMUM DAILY LOAD FOR
NICKEL IN THE HACKENSACK RIVER

Public Notice

Take notice that on April 27, 2000, pursuant to the provisions of the New Jersey Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., and the Statewide Water Quality Management Planning Rules (N.J.A.C. 7:15-3.4), an amendment to the Northeast Water Quality Management Plan was adopted by the Department of Environmental Protection (Department). This amendment established a Total Maximum Daily Load (TMDL) for Nickel in the Hackensack River.

Total Maximum Daily Loads (TMDLs) represent the assimilative or carrying capacity of the receiving water taking into consideration point and nonpoint sources of pollution, as well as surface water withdrawals. A TMDL is developed as a mechanism for identifying all the contributors to surface water quality impacts and setting goals for load reductions for specific pollutants as necessary to meet surface water quality standards. TMDLs are required, under Section 303(d) of the federal Clean Water Act, to be developed for waterbodies that cannot meet water quality standards after the implementation of technology-based effluent limitations. TMDLs may also be established to help maintain or improve water quality in waters that are not impaired. A TMDL establishes waste load allocations and load allocations for point and nonpoint sources, respectively.

Regulations concerning TMDLs are contained in USEPA's Water Quality Planning and Management Regulations (40 CFR 130).

Where TMDLs are required to address documented surface water quality impairment, such changes are to be made to the varying sources contributing to the water quality problem in order to reduce the total pollutant load received by the waterbody. Load reduction goals established through TMDLs are achieved through the issuance of wasteload allocations (WLAs) for points source discharges, load allocations (LAs) for nonpoint source discharges, and a margin of safety. Since nonpoint source pollution, by definition, does not come from discrete, identifiable sources, load allocations would consist of the identification of categories of nonpoint sources that contribute to the parameters of concern. The load allocation would also include specific load reduction measures for those categories of sources, to be implemented through best management practices (BMPs) including local ordinances for stormwater management and nonpoint source pollution control, headwaters protection practices, or other mechanisms for addressing the priority issues of concern.

USEPA established a TMDL for Nickel in the Hackensack River effective December 27, 1999 pursuant to 40 CFR 130.7 (d), see volume 65 of the Federal Register, page 2398, dated January 14, 2000. Under N.J.A.C. 7:15-7(l), TMDLs established by USEPA are considered part of the appropriate areawide WQM plan.

Table 1. TMDL/WLAs/LAs for nickel in the Hackensack River.

Source:	Existing load (lbs/day)	WLA/LA (lbs/day)
Bergen County Utilities Authority [NJPDES Permit #NJ0020028]	11.3	2.2 ¹
North Bergen Sewage Treatment Plant (STP) [NJPDES Permit #NJ0034339]	0.28	0.38 ²
Secaucus STP [NJPDES Permit #NJ0025038]	0.04	0.06 ³
Combined Sewage Overflows	0.10	0.10
Storm Water	0.81	0.81
ΣWLAs.....	3.55
Atmospheric.....	1.06	1.06
Boundary (Background)	0.37	0.37 ⁴
TMDL.....	4.98

¹ The WLA of 2.2 lbs/day is established at an effluent concentration of 3.6 µg/l (total recoverable) and flow of 75 mgd. If the effluent flow is 109 mgd, the WLA is 3.3 lbs/day with an effluent concentration of 3.6 µg/l.

² Based on design flow of 10 mgd and means effluent concentration of 4.6 µg/l (total recoverable).

³ Based on design flow of 10 mgd and mean effluent concentration of 1.5 µg/l (total recoverable).

⁴ Calculated at the boundary condition of the Hackensack River upstream at the Oradell Dam.

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Date